



King Saud University
Journal of the Saudi Society of Agricultural Sciences

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ORIGINAL ARTICLE

Transfer of knowledge through expatriates nationals (TOKTEN) as a gender sensitive development assistance modality in patriarchal societies: An example from Kassala State, Eastern Sudan

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Received 26 January 2011; accepted 29 March 2011
Available online 18 May 2011

KEYWORDS

Sustainable development;
Patriarchal society;
Gender-sensitive;
Gender disparity;
Knowledge transfer;
Capacity-building;
Training

Abstract Transfer of knowledge through expatriate nationals (TOKTEN) initiative is a UNDP technical assistance modality that aims at human resource capacity building in countries that suffer from brain-drain. One of the main constraints that impede maximum contribution of human resource development programs towards sustainable development is lack of gender-sensitivity. TOKTEN initiative is believed to overcome this constraint. Thus, this paper will examine this thesis in the Sudanese setting.

Data were collected from 46 trainees who attended a training workshop arranged through TOKTEN initiative. *t*-Test was used to examine the difference in the level of knowledge of the male and female trainees about the different concepts and topics under consideration before and after the workshop.

The study results reflected a significant improvement in the trainees' level of knowledge with no significant difference between the mean level of knowledge of the male and female trainees. Thus,

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Peer review under responsibility of King Saud University.
doi:10.1016/j.jssas.2011.03.003



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the main advantage of TOKTEN initiative is its' capability to build human resource capacity in patriarchal societies without inducing gender disparity. Consequently, TOKTEN initiative should be promoted and expanded particularly in resource poor and patriarchal societies.

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1. Introduction

As sustainable development (satisfying the needs of the present generation without compromising the ability of future generations to meet their own needs) involves a complex interplay between economic, environmental and socio-cultural considerations, its realization requires paying attention to all these issues when making short- and long-term development plans (UNEP, 2002). However, this can not be achieved in the absence of well qualified and trained human resources equipped with up-to-date information, knowledge and skills to address these various issues. Thus, over the past several years it has become clear that capacity building and human resource development are central for attaining sustainable development. Therefore, capacity building has become a core goal of technical assistance provided by the United Nations system (UNEP, 2002). As human resource development in Sudan is beyond the capacity of local communities and even of state governments, its infusion in technical assistance programs is often necessary for achieving sustainable development. But since capacity building should be an ongoing process, technical assistance programs need to explore modalities through which its contribution towards capacity building in poor societies will be sustainable. Development of social capital could be one of these modalities. In this regard, the World Bank indicated that social capital is necessary for long-term development and it is the capital of the poor (Das, 2004). Mosley et al. (2004) regarded involvement in social networks as an asset without which the prospects for escape from poverty are bleak as one of the defining features of being poor is that one is not a member of – or may even be actively excluded from – networks and institutions that could be used to improve conditions of life. Social capital could convey significant benefits to poor and marginalized communities and could offset some of the impacts of socioeconomic disadvantages (Alfred, 2009) as it offers linkages and ties that increase access to resources (such as highly qualified trainers in the different specialties) outside the community (Dale and Newman, 2010; Campbell et al., 2010). Some of the extant literature about the role of social capital in community development indicated that communities with a substantial stock of social capital are in a superior position to deal with poverty and vulnerability (Campbell et al., 2010). TOKTEN initiative is one of the technical assistance modalities that can enhance social capital development, through linking Expatriate Nationals with their countries, and hence human resource development in resource poor societies such as the one under consideration in this study.

One of the main constraints that are impeding maximum contribution of human resource development programs towards sustainable development particularly in patriarchal societies is their lack of gender – planning vision. Patriarchal society is a society in which power and decision making, especially regarding use and control of resources and economic opportunities, are dominated by men (Werlhof and Claudia Von, 2007). Lack of gender – planning vision results in wide-

spread of gender gaps in access to and control of resources, in economic opportunities, in power, and political voice. Thus, gender equality is considered a development objective in its own right as it strengthens countries' abilities to grow, to reduce poverty, and to govern effectively (World Bank, 2001). Gender – planning capacity building and human resource development are important tools to effect a positive change in women's conditions as its goal is to ensure that women, through empowering themselves, achieve equality and equity with men (Moser, 1993). Gender – planning capacity building and human resource development programs are more likely to respond to deeply rooted patterns of discrimination against women as they enable women themselves to effectively contribute to policy – making and planning process (Taylor, 1999). However, to achieve this, gender planning human development programs should go beyond the simplistic slogans that have come to characterize much gender and development talk, and should bridge the gap between professed intention and actual practice in policies and programs (Cornwall et al., 2007).

2. The study objectives

The paper will examine the success of TOKTEN modality in terms of:

- (1) The numbers of females and males who attended the training program.
- (2) Improvement in the knowledge of the female trainees about some concepts and topics critical to proper designing and monitoring and evaluation of development projects, compared to their male counterparts.

3. Importance of training for achieving sustainable development

There is a general consensus that capacity building is one of the most effective means to achieve sustainable development. Capacity building is a broad holistic term that encompasses a multitude of activities. It means building abilities, relationships and values that will enable organizations, groups and individuals to improve their performance and achieve their development objectives (UNEP, 2002). Chapter 37 of Agenda 21 stresses the importance of capacity building to achieve sustainable development and the need to assist developing countries in this regard by stating “without the necessary capacity, developing countries and countries with economies in transition will be unable to identify and solve their own development problems”, but to acquire the necessary skills and institutional infrastructure these countries need assistance (UNEP, 2002). Consequently, the plan of implementation of the World Summit for Sustainable Development demanded the United Nations agencies to strengthen their contribution to sustainable development programs particularly in the area of promoting capacity building.

Although the significance and value of training in enhancing sustainable development has long been recognized, yet given today's exponential growth in technology with its effect on the economy and society at large, the need for training is more pronounced than ever (McClelland, 2002). In addition to increasing productivity, training increases employees' job satisfaction and morale, motivation, capacity to adopt new technologies and methods, innovation in strategies and products and reduces workers turnover (McNamara, n.d.). Bartram and Gibson (2000) argued that without the right training, employees become the organization's biggest liability, and when trained effectively they become its main asset.

Some researchers argued that promoting gender equality and empowering women is the most important of the eight Millennium Development Goals (MDGs) in Africa and the Arab world as empirical results revealed that gender inequalities in literacy in these regions have a statistically significant negative effect on economic growth (Baliamoune-Lutz and McGillivray, 2009; Rout et al., 2007). Thus, measures to improve gender monitoring and statistics have been identified as priorities for enhancing women's political role, including contributing to development planning (UNIFEM, 2008). Importance of gender sensitive human resource development programs in achieving gender planning development plans and strategies can not be overlooked as they enable national strategy teams to analyze poverty, households and regional disparities through a gender lens. Moreover, gender sensitive capacity building and human resource development will contribute significantly towards enabling women to compete, on equal ground, with men for resources and opportunities. This can help in reconciliation of the apparent inconsistency between promotion of gender equality which is regarded as a feminist goal, and the desire to render mainstream policies more effective on their own terms which is usually grounded in good governance strategies (Daly, 2005).

4. TOKTEN as a social capital and gender sensitive development assistance modality

As one of the main UN development agencies, The United Nations Development Program (UNDP) has introduced in 1977 a technical support modality known as Transfer of Knowledge through Expatriate Nationals (TOKTEN) that aims at reducing adverse effects of the "Brain-Drain" phenomena through "reverse transfer of technology" in many developing countries (UNDP, 2009). TOKTEN initiative provides an opportunity for professional expatriate nationals with lengthy experiences in their fields of specialization to return to their home countries, on voluntary basis, for short period of time to participate in the development process. In addition to receiving direct technical assistance (training, consultancy, research etc...), the benefiting institutions (known as host organizations) are encouraged to establish lasting relations with the visiting experts even after they return to their places of work. Thus, despite of the significant disagreement as to what constitutes social capital, TOKTEN can contribute towards developing what is called "structural social capital" which is constructed through networks, linkages and practices between individual and organizations, within and between communities (White, 2002). The initiative was launched by the UNDP in 1977, and has since then been implemented in over 30 countries in Africa, Middle

East, Asia and Europe (Ipaye et al., n. da). In these countries, highly skilled expatriate professionals have provided technical expertise, policy advice and research to governments, private and public sectors, universities, and research centers in various fields. Thus, TOKTEN modality is considered an efficient development intervention and a unique form of technical assistance, which builds on the cultural affinity of highly skilled expatriate professionals to their countries of origin as they can merge their acquired learning with their familiarity of local culture and language in order to effectively transfer their knowledge and skills to their countries of origin (Ipaye et al., n. d). Moreover, the TOKTEN program reveals a high degree of operational flexibility in its capacity to adapt to meeting both long term as well as immediate technical capacity building needs situations, within its mandate and funding capacity (Wanigaratne, 2006).

Studies on the Sudanese expatriate nationals in the Diasporas have reported that there are tens of thousands of highly talented and experienced Sudanese nationals working around the world in Africa, Australia, Europe, North America, and the Gulf countries and many of them are willing to extend a helping hand to assist in the recovery and development process in their home country (Ipaye et al., n. d). Moreover, a favourable government political disposition to inclusive participation of the Diasporas in recovery and development efforts in Sudan also exists. These situations informed the formulation of the Transfer of Knowledge through Expatriate Nationals (TOKTEN) in Sudan which is expected to support gender equality efforts in the area of human resource development particularly in certain poor and conservative parts of the country not only because the initiative provides training opportunities in critical areas without the local authorities incurring any cost, but more important because the trainees, especially females, do not need to be away from their regular residence which represents a main concern for families in patriarchal societies. Thus, TOKTEN initiative is expected to enhance gender equality in training opportunities and human resource development in patriarchal societies such as the one under consideration. This paper is intended to examine this thesis.

The common practice in assessing the contribution of development efforts in enhancing gender equality is noting the number of women participating or benefiting from a given project (UNIFEM, 2008) and in most cases without even comparing that with the number of men who benefited from the same project. Thus, one of the evident gaps in foreign aid effectiveness extant literature is the limited number of studies assessing in depth the contribution of foreign aid in supporting gender equality apart from collecting data about the number of women benefiting from a given project (UNIFEM, 2008). This paper examines the improvement of knowledge and skills (related to some concepts critical to designing sustainable development projects) among female trainees compared to their male counterparts induced by a training program implemented under the TOKTEN modality in one of the very patriarchal societies in Sudan.

5. Research method

In a collaboration effort between UNDP – Sudan (TOKTEN initiative) and the Ministry of Finance and Economic Planning (Economic Planning General Directorate), Kassala state a

training workshop entitled “designing and monitoring and evaluation of development projects” was conducted during the period July 13–August 13, 2008 in Kassala city (the state capital). The topics discussed in the workshop included ssustainable development, bottom-up development approach, top-down development approach, project cycle, project identification, project design, Participatory Learning and Action research methods (PLA) research methods, social analysis (appraisal) of development project, economic analysis (appraisal) of development project and monitoring and evaluation of development projects. The workshop was attended by 26 females and 20 males of the staff of the planning units in the state ministries and localities.

After the opening session and before starting the training sessions, the trainees were given a questionnaire to determine their level of knowledge about each of the above mentioned concepts and topics on a scale that ranges from zero (I do not have any knowledge about the concept) to four (I have a very good knowledge about the concept). To encourage the trainees to indicate their real level of knowledge, they were asked not to write their names on the questionnaires so as to keep the answers anonymous. To assess improvement in the trainees’ knowledge, the same questionnaire was also administered at the end of the workshop.

Using Kolmogorov–Smirnov test the scales used to measure the trainees’ level of knowledge before and after the workshop appeared to have normal distribution (Kolmogorov $Z = 4.587$; $P = 0.000$). Thus, t -test was used to examine the difference in the level of knowledge of the male and female trainees about the different concepts and topics under consideration before and after the workshop. Improvement in the level of knowledge of all trainees (i.e. the difference between their level of knowledge before and after the workshop) was also assessed.

6. Results and discussion

Although the study revealed no gender disparity in the trainees’ level of knowledge about any of the concepts and topics under consideration before the training workshop (Table 1), yet it did indicate the trainees high need for training. This could be inferred from the participants’ low level of knowledge

about all the dimensions and stages of project design and monitoring and evaluation. Apart from monitoring and evaluation, none of the trainees’ average levels of knowledge about the different concepts reached 1.5 on the used knowledge scale that varies from zero to four; zero = do not have any knowledge and four = has very good knowledge. Thus, the absence of gender disparity in the trainees’ knowledge before the workshop does not necessarily reflect the absence of gender inequality in training opportunities, but it is most likely due to the absence of any training and capacity building programs, even for the males, because of the limited resources available. This reflects the importance of social capital development which is initiated by TOKTEN initiative.

On the other hand, the study results (Table 2) reflected a significant improvement in the trainees’ level of knowledge about the concerned concepts. This is authenticated not only by the significant Mean Difference between the trainees’ level of knowledge before and after the training workshop, but also by the fact that while none of the trainees’ mean level of knowledge about any of the concepts covered in the training workshop (apart from monitoring and evaluation) reached 1.5 on a four points scale, the mean level of knowledge of most of the concepts exceeded three and none of them has a mean of less than 2.5. Furthermore, the trainees’ mean level of knowledge about PLA research methods and social analysis (appraisal) of development project, which are both very crucial for proper development project design and monitoring and evaluation, reached 3.59 and 3.43 after the training workshop compared to only 1.11 and 1.13, respectively before the training workshop. Moreover, the trainees’ overall mean level of knowledge about all the concepts had increased from 13.03 before executing the training workshop to 30.26 after the training workshop on an overall knowledge scale that ranges from 0 to 40.

The main advantage of TOKTEN initiative as a modality for implementing human resource development programs is its’ capability to build human resource capacity in patriarchal societies, such as the one under consideration, without inducing gender disparity. Table 3 indicates that there is no significant difference between the mean level of knowledge of the male and female trainees except for monitoring and evaluation where the female trainees showed a significantly

Table 1 Comparison between the female and male trainees’ level of knowledge about some development related concepts before the training workshop.

Subject	Mean of the trainees’ level of knowledge		Mean Difference (M1 - M2)	Std. error difference	t^*
	Females (M1)	Males (M2)			
Sustainable development	1.71	1.73	−0.02	0.21	−0.09
Bottom-up development approach	1.21	1.18	0.03	0.20	0.14
Top-down development approach	1.33	1.32	0.02	0.21	0.07
Project cycle	1.17	1.14	0.03	0.23	0.13
Project identification	1.00	1.18	−0.18	0.17	−1.05
Project design	1.90	1.18	0.07	0.53	0.13
PLA research methods	1.13	1.09	0.03	0.18	0.19
Social analysis (appraisal) of development project	1.08	1.18	−0.10	0.17	−0.57
Economic analysis (appraisal) of development project	1.08	1.18	−0.10	0.19	−0.51
Monitoring and evaluation of development project	3.25	3.14	0.11	0.26	0.43
All subjects	13.21	13.32	−0.11	0.81	−0.14

*None of the t -test indicated a statistically significant mean difference (M1–M2).

Table 2 Comparison between the respondents' level of knowledge about some development related concepts and topics before and after the training workshop.

Subject	Mean of the respondents' knowledge level		Mean difference (M2-M1)	Std. error difference	<i>t</i>
	Before the training workshop (M1)	After the training workshop (M2)			
Sustainable development	1.72	3.3	1.58	0.134	11.86**
Bottom-up development approach	1.20	3.00	1.8	0.148	12.21**
Top-down development approach	1.33	2.40	1.07	0.180	6.14***
Project cycle	1.15	3.30	2.15	0.145	14.82**
Project identification	1.09	2.96	1.87	0.123	15.41**
Project design	1.22	2.50	1.28	0.282	4.54**
PLA research methods	1.11	3.59	2.48	0.115	21.46**
Social analysis (appraisal) of development project	1.13	3.43	2.3	0.647	3.56*
Economic analysis (appraisal) of development project	1.13	2.04	0.91	0.137	6.64**
Monitoring and evaluation of development project	2.20	3.49	1.29	0.150	8.36***
All subjects	13.04	30.26	16.78	1.001	16.76**

*Significant at 0.001.

**Significant at < 0.000.

Table 3 Comparison between the female and male trainees' level of knowledge about some development related concepts and topics after the training workshop.

Subject	Mean of the trainees' knowledge level		Mean difference (M1-M2)	Std. error difference	<i>t</i>
	Females (M1)	Males (M2)			
Sustainable development	3.42	3.15	0.27	0.17	1.58
Bottom-up development approach	3.23	2.70	0.53	0.21	2.48
Top-down development approach	2.58	2.25	0.33	0.30	1.10
Project cycle	3.35	3.25	0.10	0.19	0.51
Project identification	3.12	2.75	0.37	0.17	2.15
Project design	2.46	2.55	-0.09	0.23	-0.39
PLA research methods	3.78	3.60	-0.02	0.15	-0.15
Social analysis (appraisal) of development project	2.88	4.15	-1.27	1.29	-0.98
Economic analysis (appraisal) of development project	1.92	2.20	-0.28	0.20	-1.42
Monitoring and evaluation of development project	3.62	3.30	0.32	0.16	2.00*
All subjects	30.15	29.90	0.25	1.87	0.14

*Significant at 0.001.

higher level of knowledge. Discussion with the respondents revealed that one of the main factors that put female staff in a disadvantage position regarding training compared to their male counterparts, is the refusal of their families to allow them to travel and stay away from their families. TOKTEN initiative has overcome this by providing training at the work place where most of the trainees do not need to change their regular place of residence. Consequently, the female employees were given equal training opportunities.

Since with a small sample the standard error of the mean would be large (6.22 in this study), and only large differences between means would be detected, the result that there is no significant difference between the mean level of knowledge of the male and female trainees after attending the workshop (Table 3) should be taken with caution. To be more confident that there is no gender disparity in the trainees' level of knowledge after attending the workshop, chi-square test is used.

A scale of the trainees' total level of knowledge was computed by adding the respondents score for all the topics/concepts. This scale is transformed to a three levels knowledge scale on the bases of the mean ratings of the scales. Ratings be-

yond a standard deviation below the mean were labeled as low. Similarly, ratings beyond a standard deviation above the mean were labeled as high. Ratings in the range of standard deviation below, or above the mean were labeled as medium. Table 4 indicates that there are comparable percentages of the female and male trainees in the different categories of level of knowledge and chi-square test revealed no statistically sig-

Table 4 Association between the trainees' sex and total level of knowledge about some development related concepts and topics after the training workshop using chi-square test.

Level of knowledge	Trainees' sex		Total frequency
	Female (%)	Male (%)	
Low	16.0	19.0	8
Medium	64.0	71.4	31
High	20.0	9.5	7
Total (%age)	100.0	100.0	46
Total frequency	26	20	

Chi-square = 1.96; ($P = 0.38$).

nificant association between the trainees' sex and level of knowledge after attending the workshop. Thus, although the sample is relatively small and the evaluation of the level of knowledge was subjective, yet it is safe to argue that TOKTEN initiative did not induce gender disparity in the trainees' level of knowledge.

7. Conclusion

As it has succeeded in other countries, TOKTEN has proven to be a successful modality for implementing technical assistance programs in Sudan. This is not only because it has succeeded in providing training and building human resource capacity at very low cost, but because of its ability to provide training and capacity building chances for both males and females on equal basis in a typical patriarchal society in which women are subordinates to men in all aspects of life. Although these results should be taken with caution because of the small size of the sample, still it is safe to argue that by reducing gender disparity in training opportunities, TOKTEN has contributed significantly towards enabling women to compete, on equal ground, with men for resources and opportunities and this can help in reconciliation of the apparent inconsistency between promotion of gender equality and the desire to render mainstream policies more effective on their own terms. Another success of TOKTEN is its initiation of social capital formation process in a resource-poor society. The links established between the resource poor societies and expatriate nationals if fully utilized can provide sustainable technical assistance (training, research, consultancy etc...) to such societies and can be developed into social capital that will mitigate the effect of resource scarcity on development.

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